

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

1. (Currently Amended) A method for transmitting information over a time ~~division~~
~~multiple access data~~ communications duplexed link when the link is subject to an interference,
the method comprising:

transmitting the information within a first assigned time slot ~~on the wireless data~~ of the
time communications duplexed link;

assigning a second time slot of the time communications duplexed link upon which a
redundant copy of the information is to be transmitted, wherein the second time slot is spaced in
time from the first assigned time slot by a duration greater than a typical duration of an
interference burst; and

transmitting the redundant copy of the information within the second time slot of the time
communications duplexed link.

2. (Currently Amended) A method for transmitting data packets over a time ~~division~~
~~multiple access data~~ communications duplexed link when the link is subject to an interference,
the method comprising:

detecting presence of periodic bursts of the interference;

assigning a first time slot and a second time slot of the time communications duplexed
link upon which data packets can be transmitted, wherein the second time slot is spaced in time

from the first time slot by a duration greater than a typical duration of a period burst of the interference;

transmitting the data packets on the first time slot of the time communications duplexed link; and

transmitting a redundant copy of the data packet on the second time slot of the time communications duplexed link.

3. (Previously Amended) The method of claim 2, wherein detecting presence of periodic bursts of the interference further comprising:

observing timing at which data packets with errors are received; and
determining from the observed timing that received data packets with errors are periodically spaced in time.

4. (Previously Amended) The method of claim 2, in which the data packets are sent from a transmitter to a receiver and the receiver is powered by an AC power source, the detecting presence of periodic bursts of the interference further comprising:

detecting timing of the AC power source;
observing phase of the AC power source at the time a data packet with an error is received by the receiver; and
receiving subsequent data packets with errors by the receiver when the phase of the AC power source is equal to the observed phase.

5. (Previously Amended) The method of claim 8, in which the step of detecting the presence of the interference further comprising:

selecting one of a first threshold value if the interference have been previously detected and a second threshold value if the interference have not been previously detected;

monitoring error rate of information transmitted over the data link; and

determining that the error rate has exceeded the selected threshold value.

6. (Previously Amended) The method of claim 2, in which the data packets are exchanged between a first transceiver and a second transceiver, further comprising transmitting from the first transceiver to the second transceiver an indication as to whether the second transceiver should communicate via the first time slot or the second time slot, and transmitting the data packet on a time slot selected by the second transceiver.

7. (Currently Amended) A method for transmitting data packets over a time ~~division~~ multiple access data communications duplexed link when the link is subject to bursts of interference that occur periodically with a known period between bursts and are short in duration relative to the duration of a data frame, ~~and where the data packets are transmitted in frames of duration that is a multiple of fraction of the interference burst period~~, the method comprising:

detecting a data frame phase with respect to the bursts of interference;

synchronizing the data frame phase to the bursts of interference, such that the bursts of interference-occur during a predetermined time slot in the data frame phase;

transmitting data packets in one time slot of the time communications duplexed link
during which the bursts of interference does not occur; and
transmitting a redundant copy of the data packet on another time slot of the time
communications duplexed link during which the bursts of interference does not occur.

8. (Previously Added) The method of claim 1, wherein the information is a data packet and the redundant copy of the information is a redundant copy of the data packet.

9. (Currently Amended) The method of claim 1, further comprising detecting presence of the interference before assigning the second time slot of the time communications duplexed link upon which the redundant copy of the information is to be transmitted.

10. (Previously Added) The method of claim 1, wherein the interference is originated from a microwave oven.

11. (New) A method for transmitting information over a time duplexed communications link subject to interference from a broadband interference source, comprising:
connecting a base unit communicating over the duplexed communications link to an AC power source that powers the broadband interference source;
detecting a consistent timing of data packets received with errors over the communications link at regular intervals, wherein a segment B interferer is determined to be active; and
switching operation of the duplex communications link to an enhanced mode.

12. (New) The method of claim 11, wherein detecting consistent timing comprises:
observing a time at which the data packets are received in error;
receiving phase information of the AC power source;
comparing the phase information of the AC power source to the time at which the data packets are received in error; and
determining that the data packets are received in error repeatedly at a consistent timing position with respect to the phase of the AC power source.

13. (New) The method of claim 12, further comprising lowering a threshold for determining the segment B interferer to be active, wherein the enhanced mode is initiated after detection of a lower number of periodic errors;

wherein the phase information of the AC power source is provided by an output signal of a zero crossing detector.

14. (New) The method of claim 11, wherein an enhanced mode operation comprises:
transmitting the information within a first assigned time slot of the time duplexed communications link;
assigning a second time slot of the time duplexed communications link upon which a redundant copy of the information is to be transmitted, wherein a spacing between the first and the second time slot is greater than a duration of a segment B radiation burst and different than predetermined intervals between successive segment B radiation bursts; and

transmitting the redundant copy of the information within the second time slot of the time duplexed communications link.

15. (New) The method of claim 11, wherein an enhanced mode operation comprises:
transmitting a primary copy of a downlink data packet from the base unit to a handset within a first downlink time slot of the time duplexed communications link;
assigning a second downlink time slot of the time duplexed communications link upon which a redundant copy of the downlink data packet is to be transmitted;
transmitting the redundant copy of the downlink data packet within a second downlink time slot of the time duplexed communications link;
receiving an uplink data packet at the base unit that is transmitted from a handset over a first uplink time slot, wherein an assignment of the uplink time slot is sent by the base unit in a message to the handset before transmission of the uplink data packet.

16. (New) The method of claim 15, wherein the message is contained in downlink packet header.

17. (New) The method of claim 15, wherein the handset does not transmit until receiving the assignment of the uplink time slot.

18. (New) The method of claim 14, wherein intervals between successive segment B radiation bursts are about 7 msec and about 9 msec.

19. (New) A method for transmitting information over a time duplexed communications link subject to interference from periodic segment B radiation bursts, comprising:

connecting a base unit communicating over the duplexed communications link to an AC power source that powers the broadband interference source;

identifying a phase shift of an AC power cycle between AC power detected at the base unit and AC power as applied to a source of the segment B radiation bursts; and

synchronizing a data frame of the communications link to a timing of the segment B radiation bursts, wherein only select timeslots of the data frame are subject to the radiation bursts;

entering an enhanced mode of communications for the select time slots; and

maintaining a standard mode of communication for time slots other than the select time slots.

20. (New) The method of claim 19, wherein synchronizing the data frame comprises:
altering a duration of the data frame such that a center of the select time slots of the data frame are aligned with the periodic segment B radiation bursts.

21. (New) The method of claim 20, wherein the select time slots comprise a first downlink slot in the data frame and a first uplink slot in the data frame.

22. (New) The method of claim 21, wherein the altered duration of the data frame is substantially the same as a period of the AC power cycle.

23. (New) The method of claim 21, wherein a duration of the first uplink slot and first downlink slot is about 1.67 msec, such that the segment B radiation bursts only eliminate the first uplink and downlink slots.

24. (New) The method of claim 21, wherein the enhanced mode operation comprises:
transmitting a first portion of information within the first downlink slot;
assigning a second downlink slot upon which a redundant copy of the first portion of information is to be transmitted;
transmitting the redundant copy of the first portion of information within the second downlink slot;
transmitting a second portion of information within the first uplink slot;
assigning a second uplink slot upon which a redundant copy of the second portion of information is to be transmitted; and
transmitting the redundant copy of the second portion of information within the second uplink slot.

25. (New) The method of claim 19, wherein identifying the phase shift comprises;
detecting a first timing of the AC power source using an AC to AC converter and zero crossing detector at the base unit;
providing the first timing of the AC power source to a controller in the base unit; and
monitoring a second timing of detected segment B radiation bursts by the controller.

26. (New) A method for communicating information over a time duplexed communications link that is subject to segment B radiation bursts, comprising:

- detecting the presence of segment B radiation;
- transmitting a first copy of a data packet containing the information over a primary link to a buffer that is serially incorporated into a data path of a CODEC device, the CODEC configured to convert digital data contained in the data packet into audible information;
- transmitting to the buffer an additional copy of the data packet over a redundant link; and
- buffering the information into the CODEC for playback at a constant rate with timing referenced to a frame of the time division multiple access data link, wherein the information buffered into the CODEC is contained in and selected from one of the primary and redundant copies of the data packet, the selection based on the data packet being received without error.

27. (New) The method of claim 26, further comprising:

- determining whether the first copy or additional copy of the data packet is received without error; and
- selectively conveying to the CODEC, information from the copy of the data packet that is received without error.

28. (New) The method of claim 26, wherein the segment B radiation bursts are received at a first wireless communication device coupled to an AC power source.

29. (New) The method of claim 28, further comprising:

- determining that the segment B bursts occur in a regular periodic fashion;

coupling a source of the segment B radiation bursts and the first wireless communications device to a common AC power supply;

determining an AC power signal phase shift between an AC phase detected at the communications device and an AC phase at the interference source;

synchronizing a data frame associated with the data link with the interference bursts; and

transmitting the data packets over the data link during one or more time slots of the data frame during which the segment B bursts are not received.

30. (New) The method of claim 26, wherein an interval between transmitting the data packet copy over the primary link and the redundant link is larger than a duration of each segment B radiation burst.

31. (New) A system for transmitting information over a time duplexed communications link that is subject to periodic radiation bursts, comprising:

a transceiver in a base unit configured to operate the time duplexed communications link in a standard or enhanced mode;

an AC to AC converter coupled to an AC power supply that powers the base unit and a source of the periodic radiation bursts;

a microcontroller (MCU) unit that controls operation of the transceiver, a zero crossing detector that generates a signal to the MCU for determining a frequency and polarity of the AC power source, wherein a timing of transmission errors received at the base unit with respect to a phase of the AC power source is determined.

32. (New) The system of claim 31, wherein the time duplexed communications link comprises a WDCT frame structure.

33. (New) The system of claim 31, wherein the periodic radiation bursts comprise segment B radiation bursts.

34. (New) The system of claim 33, wherein an enhanced mode of operation is initiated when a consistent timing position of transmission errors received at the base unit with respect to the phase of the AC power source is observed.

35. (New) The system of claim 34, wherein an enhanced mode comprises:
transmitting a first copy of the information within a first time slot of the time duplexed communications link;
assigning a second time slot of the time duplexed communications link upon which a redundant copy of the information is to be transmitted, wherein a spacing between the first and the second time slot is greater than a duration of a segment B radiation burst and different than predetermined intervals between successive segment B radiation bursts; and
transmitting the redundant copy of the information within the second time slot of the time duplexed communications link.

36. (New) The system of claim 35, further comprising:
a CODEC device configured to covert digital data contained in the transmitted information into audible information;

a buffer device serially incorporated into a data path of the CODEC device, the buffer configured to buffer the information for playback at a constant rate.

37. (New) The system of claim 36, wherein the information buffered into the CODEC is contained in and selected from one of the first and redundant copies of the information, the selection based on the chosen copy being received without error.